

# **C-51 Basin Rule Reevaluation Contract (C-13412)**

## **Comments on Draft Deliverable #1**

Overall, TBE Group Inc. has done a terrific job of compiling, synthesizing and summarizing the available data related to the C-51 Basin Rule Reevaluation Contract. The comments listed below are compiled based on review of the draft deliverable by the internal SFWMD Team (Part A) and the external Technical Review Team (Part B) for the C-51 study.

### **Part A: SFWMD Internal Review Team Comments**

The following comments on draft Deliverable #1 are provided by SFWMD's Internal Review Team for the C-51 study.

#### **General Comments**

##### **General Comment A1: Section Titles:**

- Use bold text for Section Titles and sub-sections

##### **General Comment A2: Page Numbers:**

- Format the page numbers to show Section Number as well. For example, page 1 of Section B should be numbered "B-1" or similar.

##### **General Comment A3: Attachments:**

- There are a number of attachments referred to but not included in the document. Please ensure all reference materials are included.
- If the reference is to a CD or other media type, please ensure the level of reference detail provided is sufficient to locate that reference – the CD, or other media type, and the specific file.

##### **General Comment A4: Format of CD:**

- Format the CD's such that electronic format is easier to follow. For example, use directories and if necessary, subdirectories, on the CD's. Each Section of the document could be contained in a directory / subdirectory on the CD. This would make it much easier to follow than having all files related to the project at the CD root directory.

#### **Specific Comments**

##### **Comment A-1: Section A, Sub-Task 1.5, Paragraph 1, Sentence 4:**

- Remove "(since receipt of LIDAR data from the District in machine-readable format was delayed, the draft DTM will be submitted by December 1, 2002.)"

Submittal of the DTM at a later date (December 1, 2002), was agreed to by the District and TBE prior to submittal of the deliverable. There is no reason, nor is it appropriate, to include such a statement in the deliverable.

**Comment A-2: Section A, Sub-Task 2.3, Paragraph 1, Sentence 2:**

- Replace “District Review Team” with Technical Review Team”.

**Comment A-3: Section B, Paragraph 3, Sentence 4, Page 1:**

- Remove “(Note: the original estimate for development of the DTM assumed transfer of the LIDAR data no later than September 1, 2002. Unfortunately, the District had staffing limitations that prevented the data’s availability until early October.)” It is not appropriate to make this statement in the deliverable. It was agreed to between the District and TBE prior to submittal of the deliverable that December 1, 2002 is a suitable date for the DTM and this will not impact the schedule. If you like, in the previous sentence you may revise it to state “As agreed to between the District and TBE, it is currently projected that the DTM will be available for review by December 1, 2002.”

**Comment A-4: Section B, September 4 Meeting Summary:**

- The Project Schedule and Agenda are referred to as attachments. Since these are referred to here, they should be included with the Meeting Summary.

**Comment A-5: Section B, September 17 (1:15 PM) Meeting Summary, Page 2, Last Sentence:**

- “basin” is spelled incorrectly in the phrase “local sub-**basin** insights”.

**Comment A-6: Section B, September 17 (1:15 PM) Meeting Summary, Page 3, Item #5:**

- “lower” is spelled incorrectly in the phrase “for **lower** operating levels”.

**Comment A-7: Section B, September 18 (10:00 AM) Meeting Summary, Page 1, Paragraph 1, Sentence 2 AND Page 2, Last Sentence of Second last Paragraph:**

- “Wertepny” is spelled incorrectly in the phrase “with Alan **Wertepny** of MRA”.

**Comment A-8: Section B, September 18 (12:00 PM) Meeting Summary, Page 1, Paragraph 1, Sentence 1:**

- Remove the word “the” in front of “Clete Saunier, as Administrator...”.

**Comment A-9: Section B, September 19 (10:00 AM) Meeting Summary, Page 2, Item #5, Sentence 1:**

- “County” is misspelled.

**Comment A-10: Section B, September 25 (1:00 PM) Meeting Summary, Page 1, Paragraph 1, Sentence 2:**

- Remove second period “.” From end of sentence.

**Comment A-11: Section B, September 25 (1:00 PM) Meeting Summary, Page 1, Item 4, Sentence 2:**

- Replace “state dthat” with “stated that”.

**Comment A-12: Section B, October 8 (10:00 AM) Meeting Summary, Page 1, Last Sentence:**

- Please include the attachment that is referred to in the last sentence and identified at the bottom of the page.

**Comment A-13: Section B, October 16 (1:00 PM) Meeting Summary, Page 1, Paragraph 3, Sentence 1:**

- Reference is made to an EXCEL spreadsheet, but it is not attached as part of this Meeting Summary. If this is the same spreadsheet as at the end of Section C, please provide the necessary reference details. If this is referring to another spreadsheet, please include the appropriate reference location, or include as an attachment to the Summary.

**Comment A-14: Section C, Page 11, Sentence 1:**

- Wording “... there is not very much vacant land left as a percentage...” is awkward. Suggestion – “...there is very little vacant land left as a percentage...”.

**Comment A-15: Section D, Page 1, Paragraph 4, Sentence 1:**

- The word “still” has been spelled “till”.

**Comment A-16: Section E, Map of Recommended Sub-Basin Boundaries:**

- The sub-basin map being recommended as part of this study has the same Title, Date and Disclaimer / Description as the map representing the original (1984) study sub-basins. Revise the map to have an appropriate Title, Date and Disclaimer documentation representing this current study. It is important to note that the sub-basins being recommended in this study are preliminary until the study is complete and the rule is adopted. The CD containing this jpeg file has three files: 1) C51subbasins – the 1984 map; 2) c51subbsn – the revised/recommended map; and 3) New c51subbsns – also the revised/recommended map. If there is a difference between 2) and 3) please identify and describe.

**Comment A-17: Section E, Page 6, Sub-basin 16A, Last Sentence:**

- Incorrect use of “their” – replace with “there”.

**Comment A-18: Section E, Page 9, Sub-basin 38, Sentence 3:**

- Use capitol “R” for “Riverwalk”.

**Comment A-19: Comment 19: Section H, Page 1, Paragraph 1, Sentence 1:**

- You indicate that H&H data from the District's DBHYDRO database is enclosed in the back of the report. Please provide additional detail on where this data is located "in the back of this report". That is, provide enough detail so the information you reference can be more easily identified – Note the CD, and if appropriate the directory and filenames. I believe the information to which you are referring is actually found on two CD's, with different names on each CD. Please ensure that the correct file is referenced.

**Comment A-20: Section H, Paragraph 1:**

- Additional descriptive detail on the data that you are referencing in this section would be beneficial. Please identify the kind of data collected, including the reporting period and data type (mean hourly, daily, monthly...). I would like a table/report identifying the source of the data, the station location, station identifier, period of record, etc...

**Comment A-21: Section H, Page 1, Paragraph 2, Sentence 3:**

- Reference to the data sets used by FEMA contractors as being attached to the back of this report. Same as comment #17, please provide additional detail identifying where the data is located "in the back of this report". The use of Appendices would help. Have each CD (or set of CD's such as for the software or the FEAM FIRM maps) as an Appendix. Within the Appendix, where necessary, the appropriate directory and filename could be referenced.

**Comment A-22: Section H, Page 1, Paragraph 2:**

- For x-sectional information, please provide detail and documentation on the data source along the entire length of the canal. Identify where canal improvements have been made and the source of the data for each location.

**Comment A-23: Section K, Electronic Data Set 4:**

- The land use provided as a shape file appears to be 1988 although the columns in the attribute table indicate 1995 data. When overlaid on the coverage that SFWMD has in-house for 1988 and 1995 land use, the file you provide matches with the 1988 data.
- Where did you obtain this land use? How do you intend to use the land use? Obtain the most recent land use data available and ensure this is used in the study.

**Comment A-24: Section K, Data Set 4:**

- The soils CD does not have the soil relate files included. This is necessary to identify the soil types. Where did you obtain the soils data? How do you intend to use the data? Please ensure you have complete information.

**Comment A-25: C-51 Basin Boundary:**

- Explain in detail the differences between the drainage basin boundary for the entire C-51 basin (as provided in the shape file as well as the 1984 study) and the recommended basin boundary for the C-51 basin. Provide justification as to why the boundary needs to be revised. The north portion of the basin is of particular concern since this is where the most discrepancy appears. Any boundaries that change should be thoroughly documented.

**Comment A-26: C-51 Basin Boundary Revisions:**

- Although Baywinds and Andros Isle have been designed with inflows to the WPB Water Catchment Area, they also include connections allowing for runoff to be directed eastward when it is determined that the Catchment Area can not except runoff from those sites. Baywinds and Andros Isle should be included in the C-51 basin.
- The September 18 meeting with MRA also makes to the Baywinds system discharge to the WPB WCA.
- Page 4 of 4 of the Permit Data Table under Tab D indicates the Lennar Homes system, Permit No. 50-03926 discharges to the WCA. It should be noted that there is a runoff connection to the east.
- Section E also makes reference to systems in Subbasin 34 that no longer connect to the C-51.
- The section on recommended subbasin boundaries, page 9 under Tab E, also references a portion of the Andros Isle system that does not contribute to the C-51 and it excludes the Lennar(Baywinds) system.

**Comment A-27: District facilities / Meeting Summaries:**

- There are many references to operation of District facilities such as the September 17 summary of the meeting with SFRN. Has TBE met with the District operations staff? There is no meeting summary in this submittal identifying such a meeting.
- Operating rules and procedures (and assumptions) need to be documented in detail. This should be included in the next deliverable, as this is an important aspect of the model development.

**Comment A-28: Section D, Permit Data Table, Page 2 of 4:**

- There is a reference to an agreement between ITID and Stonewal on page 2 of 4 of the Permit Data Table under Tab D. That agreement does provide for inflow from the Stonewal system to ITID. How does the contractor plan to account for that? The Stonewal property does not show up on the subbasin map.

**Comment A-29: Section D, Permit Data Table, Page 3 of 4:**

- On page 3 of 4 of the Permit Data Table under Tab D, why isn't the permitted discharge for Wellington's Edge handled the same way as the Wellington Green Mall on page 4.

**Comment A-30: Section I – Related Studies:**

- Related studies section is lacking. There have been numerous studies in the area, some still ongoing that have not been mentioned.

**Comment A-31: (September 18 Meeting (10:00 AM):**

- Concern over the Renaissance Project – Reviewer thought it included City Place and the Convention Center but if so some of the language contradicts or is confusing.
- Where is Hampton Lakes – any subdivision mentioned should be identified on a map.

**Comment A-32: Additional Meeting:**

- Steve Lin put together the first Basin Rule. Would be beneficial to meet with Steve and provide a summary document similar to the others in Section B.

## **Part B: External Technical Review Team Comments**

The following comments are compiled based on review of the draft deliverable by the external Technical Review Team for the C-51 study.

**Comment B-1: Section A, Task 3, SubTask 3.3, Page 5 of 7:**

- How will the discharge for each sub-basin be determined for the 100-year, 72-hour storm event?
- Will the runoff hydrograph be generated to reflect present conditions and the hydraulic capacity of discharge structure for each sub-basin?
- How will you account for undeveloped lands within the sub-basin?
- Will the discharge be limited to any allowable rate?
- If an existing, un-permitted system discharges in excess of allowable, will its discharge be artificially limited to allowable?

**Comment B-2: Section B, September 18 (1:30 PM) Meeting Summary, Page 1, Item 1:**

- Permit issued November 4, 2002, a copy will be provided to TBE November 22, 2002.

**Comment B-3: Section B, September 18 (1:30 PM) Meeting Summary, Page 1, Item 3:**

- The control elevation for Basin A is 11.0’.

**Comment B-4: Section B, September 25 (1:00 PM) Meeting Summary, Page 2, Item 5:**

- At the north end of CPB-20A there is a 36-inch diameter pipe extending to Okeechobee Blvd. Tampa Bay Engineering should obtain from Palm Beach County roadway plans and updates for Okeechobee Boulevard from Palm Beach County, to determine if Sub-Basin 16B can contribute to Sub-Basin 16A.

**Comment B-5: Section C, Page 2, Paragraph 2, Sentence 3:**

- States that ... “Only under extreme rare circumstances has water ever flowed from the C-51 westerly through this structure. As a result any capacity of the S-5AE to provide flood protection must be ruled out in the subsequent basin modeling efforts”. During the existing 100-year event will water flow westerly through this structure as indicated in the current FEMA studies? It is likely that during the 100-year storm events with S-319 pumping station in operation there will be no westerly C-51 flow. Please confirm.

**Comment B-6: Section C, Pages 7 - 8:**

- Reference is made to NPBCID Structure which controls the CPB-20A Canal System. This was previously a NPBCID Control Structure; however, it is now owned, operated, and maintained by the Village of Royal Palm Beach. Therefore, the text should read a Royal Palm Beach control structure.

**Comment B-7: Section D, Page 1:**

- Reviewer provided an inventory of some of the Village of Wellington’s surface water management permits. This will be provided to TBE on November 22, 2002. This Exhibit and database is currently being revised by the reviewer and should be available within sixty days. Please advise if you want the updated version.

**Comment B-8: Comment 8: Section E, Pages 3-9:**

- Will the C-51 Sub-Basin boundary for the 100-year storm event be modified as a result of the modeling studies and the LIDAR data, which may indicate sub-basin transfers?
- Will modeling studies reflect a representative elevation equalizing between the boundaries of sub-basins delineated for the 10-year event?

**Comment B-9: Section E, Page 6, Sub-Basin 15-B:**

- Please clarify as to what storm events the permitted operational protocols will allow sub-basin 15-B to contribute to C-51. Addressing this issue may be similar to assumptions made by SFWMD in the 1984 study for no permitted

discharge from certain sub-basins (New Sub-Basin Nos. 13, 16B, 20A, 38). Additionally, will these sub-basins with zero discharge for the 10-year event be provided with a set discharge rate or one determined by modeling the existing condition. Note that these projects were designed with at least a minimum discharge rate for water quality purposes (1/2 inch per day).

**Comment B-10: Section E, Page 6, Sub-Basin 16B:**

- Within this basin is a 100-acre commercial tract with a surface water management system that discharges through a 60-inch diameter culvert under Okeechobee Blvd. to the commercial tract south of the roadway.

**Comment B-11: Section E, Page 7, Sub-Basin 25B:**

- Sub-Basin divide is west of Congress Avenue at a control structure installed by the Lake Worth Drainage District into the L-2 Canal. The structure is approximately 250-feet west of Congress Avenue and is immediately east of a ditch extending north. Refer to a more detailed aerial to locate the facilities, and to be able to modify the boundary.

**Comment B-12: Section E, Page 8, Sub-Basin 35:**

- Cloud Lake has a discharge Pump Station with a capacity of 12,000 gallons per minute.

**Comment B-13: Section F, Soils Data**

- How is the information in the Generalized Soils Map planned to be used? There are more detailed soil maps available for each sub-basin available.

**Comment B-14: C-51 Basin boundary revisions:**

- What is the basis for the C-51 Basin boundary revisions? Will the whole team agree with them?